



# News Release

## Defense Advanced Research Projects Agency

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3701 North Fairfax Drive  
Arlington, VA 22203-1714

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IMMEDIATE RELEASE

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### **CONTRACTORS FOR WALRUS PROGRAM ANNOUNCED**

The Defense Advanced Research Projects Agency (DARPA) has awarded funding to two contractors for the first phase of the Walrus program.

DARPA's Walrus program will develop and evaluate a very large airlift vehicle concept designed to control lift in all stages of air or ground operations including the ability to off-load payload without taking on-board ballast other than surrounding air. In distinct contrast to earlier generation airships, the Walrus aircraft will be a heavier-than-air vehicle and will generate lift through a combination of aerodynamics, thrust vectoring and gas buoyancy generation and management.

The two contractors receiving Walrus phase I awards are:

- Lockheed Martin Corp., Advanced Development Programs, Palmdale, Calif., \$2,989,779
- Aeros Aeronautical Systems Corp., Tarzana, Calif., \$3,267,000

The Walrus program will develop an operational vehicle concept design and required breakthrough technologies and will conduct risk reduction demonstrations of these new technologies. Demonstrations will include flight tests of a Walrus Advanced Technology Demonstration (ATD) scaled aircraft. A key goal of the Walrus program is to establish clear and credible solutions that provide confidence that earlier airship-era limitations will be overcome. In particular, an early focus of the program will be the investigation of advanced breakthrough technologies that will support the development of innovative lift and buoyancy concepts that do not rely on off-board ballast.

The Walrus operational vehicle (OV) is envisioned to have the primary operational task of deploying composite loads of personnel and equipment (for example, the components of an Army Unit of Action) ready to fight within six hours after disembarking the aircraft. Walrus will operate without significant infrastructure and from unimproved landing sites, including rough ground having nominal five-foot-high obstacles. It is intended to carry a payload of more than 500 tons 12,000 nautical miles in less than seven days at a competitive cost. Additionally, Walrus will be capable of performing theater lift and supporting sea-basing and persistence missions to meet a range of multi-Service needs.

(more)

During the program's first phase, a 12-month analytical effort, the two contractor teams will conduct trade studies to determine which OV design concept most satisfies the operational tasks and optimizes design capability. Phase I will explore various vehicle configurations (rigid, non-rigid and semi-rigid), and will conclude with a concept design review of the OV and the supporting technology development plan for risk reduction demonstrations including the ATD vehicle.

DARPA will select one contractor team to enter the second phase, which will be a demonstration effort spanning three years. During phase II, the program will refine the OV design needs, identify the OV's potential military utility through modeling and studies, develop breakthrough technologies, and conduct risk reduction demonstrations of components and subsystems, including flight demonstration of the ATD vehicle. The risk reduction demonstrations, including the ATD vehicle, will establish a low-risk technology path for proving the Walrus concept and achieving the operating goals.

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Media with questions, please contact Jan Walker, (703) 696-2404, or [jan.walker\[at\]darpa.mil](mailto:jan.walker@darpa.mil). Contractors or military organizations, contact Mr. Phil Hunt at (571) 218-4447.